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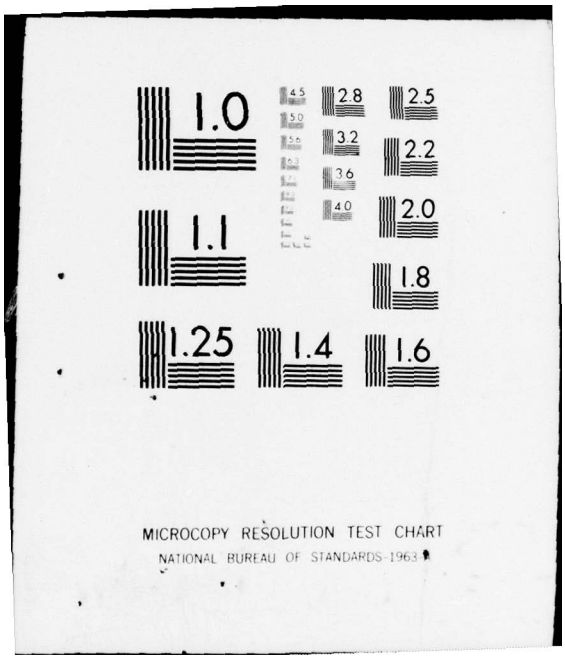
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Psychological Aspects of Geriatric Dentistry

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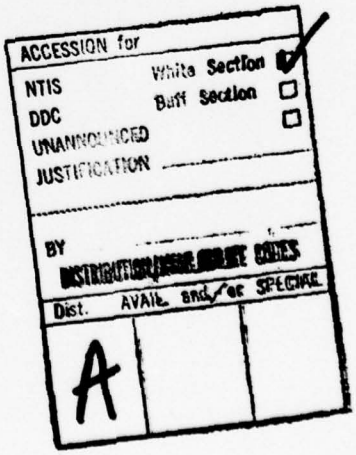
Abstract

The average American is getting older each year. Concomitant with this increase in age is a growing awareness that older people have problems that are peculiar to their age group. This paper explores problems of the aged patient that have importance to the dental practitioner. Particular emphasis is given to problems in prosthodontics, periodontics/oral hygiene and the operative areas of dentistry. A review of the psychology of the geriatric is presented along with suggestions for successful treatment.



While pursuing the undergraduate degree, most prospective dentists are encouraged to develop a broad educational base. Many students use this opportunity for electives in the liberal arts, including the disciplines of psychology and sociology. Some dental students are also allowed the opportunity for elective selection as a part of the dental school curriculum. In addition to these opportunities for enlarging his educational base, the dental student is normally exposed to psychological considerations which will tend to influence the success of any treatment regimen. Psychological methods of motivation for plaque control, pain alleviation, and restful decorating of the dental office are among areas explored. It is stressed that the pedodontic patient is not simply a small adult but has problems and thought processes inherent to the individual age. Yet, little special consideration is given to the psychological aspects of treating the older patient. This seems to be an area of dentistry that has not received enough emphasis.[1] This field has been variously referred to as geriatric dentistry or geriodontics. A decline in new births due to the popularity of birth control methods and changing sociologic values; coupled with better health care and longer life has drastically changed the number of older people the dentist will treat. According to 1974 data; there were approximately 21.8 million Americans over the age of 65; this is roughly 10% of the population. We will present here, certain

aspects of the aging process and point out the effects aging can have on dental treatment in the areas of. prosthodontics, periodontal therapy and certain operative procedures.

Any discussion of the effects of aging would seem to require a review of what is commonly termed the life cycle. While it is true that many changes occur with the progression of age, equally important are the events that have taken place with the change of years. Many psychologists remark that what occurs during the years is more important than the years alone. One might be able to say that an individual really has two ages: a strict chronological age, which is biologically related, and a more fluid developmental age, which is psychologically related.

Over the years, different writers have tried to classify the growth and aging of the individual. They have tried to break the life line into periods or milestones of life. The seven stages that are most commonly used are: infancy,childhood,adolescence, young adulthood, middle age, old age, and senescence. It is, of course, the latter two with which we will concern ourselves at this time. It is important to realize that senescence is defined as that period of life during which additional years produce decrements in functional ability, but this is most certainly not the same as senility.[2]

To fully understand the problems of the final two stages of life, one must be cognizant of the many biological,sociological and

psychological factors which have impacted on the individual during his lifetime. Unfortunately, there is little agreement concerning the relationships of these various factors. Many constructs have been proposed, many theories stated. Foremost among these have been the theories of Buhler, Jung and Erikson.

Charlotte Buhler[3] noted five biological phases: (1) progressive growth, 0-15 years; (2) continued growth combined with the ability to reproduce, 15-25 years; (3) stability of growth, 25-45 years; (4) loss of sexual reproductive ability, 45-65 years; and (5) regressive growth and biological decline, age 65+. The final two stages can be seen to approximate the stages of old age and senescence. She noted that the transition to the fourth phase is often introduced by a crisis; since at this point the unfolding of the individual's powers has come to a standstill and much has to be given up which depended upon physical aptitude or was connected with the biological needs. The fifth phase finds more premonitions of death and complaints of loneliness. Often, those in this phase are occupied with religious questions. Buhler concluded from her studies that the individual's assessment of whether he did or did not reach fulfillment was more critical in old age maladjustment than biological decline or insecurity.

Carl Jung[3,4] felt that in old age there is a tendency for people to change into opposites. Older men grow more feminine and older women more masculine. He stressed the need for the

older individual to have goals in life and to strive for self-actualization.

Erik Erikson[3,4] defined eight ages of man. His final stage is brought on by an increasing awareness of the finitude of life and of one's closeness to death. It may frequently be triggered by retirement or a decline in health.

In attempting to define the older individual, there would seem to be two events in particular that can be utilized as guidelines. Menopause, the cessation of the menses and the decline of production of sex hormones is initially biological in nature but produces significant psychological effects. The second event; retirement, generally at age 65, is primarily socially determined, being an artifact of the age first set for retirement in Germany, by Otto von Bismarck in 1882. It is interesting to reflect that our society is only now recognizing the artificiality of this age with legislation being introduced in the United States Congress. The time of retirement can also have much psychological significance and should only be approached with understanding and planning. Having explored these concepts of old age; let us now go a step furthur in evaluating the problems in dentistry peculiar to this age group.

Prosthodontics

Riley[5] pointed out that one area of body structure and function most evident to every person is the teeth. Unlike muscles and bones, which concern us primarily when they ache or malfunction,

the daily awareness of teeth is all too recognizable. We brush, we chew, our tongues touch our teeth, our teeth decay and ultimately many of us will have partial or complete dentures. Indeed, it is true that most of the writings, in dentistry, discussing the older individual, deal with problems peculiar to denture design and construction. Jamieson[6] in discussing the older patient remarks that changes in oral structures occurring with age include: tissue that is more friable, has a thinner epithelial layer and a dehydrated mucosa. An interesting observation is that causalgia pain is more common and, in fact, characteristic of the aged. This is a difficult problem to deal with and requires much more patience, understanding and empathy than might be necessary for the younger patient. Jamieson furthur states that the aged tend to endure increasing physical discomfort, rather than make the effort to see a doctor for the early treatment of an ailment, even though it may become serious. The prosthodontist, in effect, needs to be a gerontophile; one with a marked love for the aged. Any problems normally evident in prosthodontics are only amplified when dealing with the aged. It is quite possible that the lack of seeking early care is related to the process of disengagement. As the older person withdraws from society, society tends to withdraw from him. This decreases social responsibility and intentions. With an increasing awareness that his future is limited and death is not only inevitable but no longer far distant, the older person may be more likely to attend to himself and to whatever is extremely important and push away what is not. Also, many of the elderly

deeply resent their own dependency. They would rather retain mastery over their environment than have to call on others for help. Silverman[7] made many interesting observations regarding denture acceptance in individuals 60-79 years of age. He noted that those subjects who were most field-dependent, as measured by his assessing methods, registered the greatest number of complaints. These complaints were not related to the well-constructed dentures but rather to the lack of acceptance of a new artifact which altered the body image. Adaptation to the dentures was a difficult task for these subjects and the complaints followed as a manifestation of poor adjustment. The men in this study seemed to accept the dentures more readily than the women. Employed subjects of either sex tended to be more satisfied. I feel that there can be little doubt that this is at least partially related to the psychological well-being which having a purpose or goal in life provides, as emphasized by Buhler and Jung.[3,4]

This is furthur reflected in that those patients who complained of poor esthetics of the denture also rated low in morale evaluation and possessed a primative body concept. This once again points out the importance of the individual's subjective perception rather than objective reality. Also, those who rated their standard of living as better than their contemporaries had better denture acceptance. Silverman[7] suggested the use of the focused interview for the geriatric because it was nonthreatening,

provided a communication outlet and can readily be employed by a dental practitioner.

As with many of the problems in our society, a primary obstacle for the aged is money. Dentistry, in general, is expensive for the general populance. Much has been written about the number of Americans(less than 50%)[8] that receive regular dental care. This problem becomes even more ominous for a person living on a fixed income or a strict budget. It is also significant to realize that most of the dentistry that the aged require is big ticket dentistry. By this, I mean those items requiring a substantial outlay of funds; as opposed to the $50-60 it has been estimated that can keep a younger individual on a yearly maintenance schedule. People of an older group often require prosthodontics, either fixed or removable. Those not requiring prosthodontics will often be in need of periodontal treatment; both are major budget items. I would propose that this could, in part, explain the previously mentioned finding of Silverman that employed individuals evidenced higher denture acceptance. Although well-being and body image are important, one could suppose that these individuals might not have been as apprehensive regarding the ability to pay for their treatment.

Periodontics

The inability to pay can have other detrimental effects on the individual other than avoiding treatment. There seems to be a societal view that poverty is either the fault of the individual

or the will of God. Many elderly people, in particular, were brought up this way. In addition, when poor, they have no way to change their situation as do the young. Thus, poverty in old age is destructive of self-adequacy and self-esteem in many ways.

The economic problem of older individuals requiring periodontal therapy has been mentioned along with the fact that they often avoid treatment for the less serious problem until treatment becomes essential. Once the patient does seek dental care the entire treatment plan may be jeopardized by factors that are beyond the control of either the dentist or the patient. It is well to review some of these so that potential pitfalls can be avoided.

In order for dental treatment, especially periodontal treatment, to be effective and successful, a patient must be able to produce a certain level of health in his mouth. This would mean lowering the quantity of bacterial plaque on the teeth and in the gingival sulcus. Robert Barkley so effectively pointed out that unless the three criteria of: understandable, attainable and demonstrable could be met, an individual cannon achieve successful independent health. "It must be understandable or he will not grasp what he is trying to do; it must be attainable or someone else will have to do it for him; it must be demonstrable or he will have no way of knowing whether he has achieved success."[9] These goals, while difficult for many of our patients, are only increased in difficulty with age.

McFarland[10] wrote that due to the loss of elasticity of the lens there is a reduced capacity, of older individuals, to see objects near at hand. Concomitantly, adaptation to dark and light are affected and there is a decrease in peripheral vision and overall acuity. Thus, it can be especially frustrating for an older individual to attempt to peer into a mirror learning new methods of oral hygiene. Even when the dentist employs the commendable practice of demonstrating an individual's disease in their own mouth, a lack of understanding can occur simply from the inability to rapidly shift from the dentist's face to a brightly illuminated mirror. One must remember to provide time for adaptation to occur. The older patient may state that they visualize what is being demonstrated, but one must be gently persistent to be sure that they are not just avoiding their visual problem with the ready answer. The dentist can then help these individuals develop coping behavior.

Auditory loss parallels the visual loss.[11] It is not simply a matter of going deaf but is a loss of acuity at the extremes of the sound spectrum; especially the higher ranges. There is a difficulty in understanding speech rather than an inability to hear, which is only made worse if the speaker tries to shout to make themselves heard. This loss often isolates individuals from their social groups. Again, one can see the difficulties of transmitting a method of oral disease control. If such an individual is placed in small group instruction they may miss much of the

important knowledge due to an uneasiness in having it explained. Furthurmore, the problem is enhanced if much of the hygiene instruction is directed by a female, a common practice in many dental offices, due to the higher pitch of the female voice. Once again it is necessary to be extra persistent to assertain the message is understood. One on one instruction would be preferable for the elderly and, if possible, it might be wise to select an auxilary with a lower voice range.

Once the visual and auditory environment has been arranged for the elderly; one can proceed with instruction only when cognizant of certain other differences of the patient relating to memory and psychomotor abilities. Of the elderly, it can been said that fuzziness increases with age.[12] This is to imply that things are not as clear cut as when we are young, many more grey areas exist. In fact, the memory of older people decreases and there is an increasing involvement of immediate events in the structure of the intellect.[13,14] There is a general decline with age which may not really be a loss, but may reflect the years of accumulation of knowledge.[15] The sensorimotor abilities of older persons are more affected when the materials to be learned are presented in rapid succession, when the materials are exposed briefly and when the learning task is difficult.[16] The older person has less muscular strength, takes longer to react to new forms of stimuli and will take longer to make a motion.[17] In the past, it was felt that the IQ significantly declined with age.

however, it has been shown that this is a function of the slowing of reaction. When the elderly are given tests which are shorter or have the time requirement removed, the drop in IQ is not as drastic. These factors will require the dentist to take more time in presenting visual materials, in speaking, and in allowing the individuals to demonstrate their ability to accomplish some of the rather difficult tasks required for dental health.

Operative Areas

In practicing the disciplines of restorative and surgical dentistry, one must be aware of the before mentioned factors. It is necessary to understand why the patient has allowed a disease to progress to an advanced stage before seeking treatment. It will be necessary to explain things in a slower manner, allow a longer time to complete health inventories or make the trip from the reception area to the operatory. It has been stated that older individuals tend to tolerate pain and thus have a higher pain reaction threshold than younger individuals or children.[18] Perhaps their philosophy of living or the realization that unpleasant experiences are a part of life may account for this fact. However, adjunctive methods of pain control other than local anesthesia are permissible in the aged. Old age is not included in the common contraindications to either nitrous oxide inhalation sedation or intravenous sedation; privided there are no significant medical problems existent. Therefore, every effort should be made to practice pain control in the aged, as one would do with the younger patient.

The difficulty of the aged existing on a limited income has been mentioned. Unfortunately, this factor can sometimes complicate the treatment plan as related to endodontics. There can be a tendency to avoid the more costly endodontic treatment in favor of the less expensive surgical solution. This is often rationalized on the basis of a short life expectancy. Methods should be sought to overcome the cost barriar, since keeping the dentition intact can improve the dental prognosis. The psychological implications of perserving the dentition can be even greater. Pollock[19] relates that the loss of a body part is often experienced as equivalent to the loss of a loved person; the concept of mourning. Many patients view the loss of teeth as evidence that they are becoming old and useless. The concept can be equated to the idea that if parts of the body are becoming expendable, perhaps the whole is equally expendable. We must realize that the mourning concept can be amplified in the aged by the fact that many of their friends or relatives have left them. Every effort should be made to perserve the dentition of the aged, realizing the significant impact it is possible to make on the happiness of a person's later years.

In conclusion, there are certain points that should be stressed to the clinician working with the aged. "In the process of aging and changes related to it, previous sources of satisfaction by way of the body, recognition from others and gratification from being able to practice certain skills are diminished. This

can lead to a loss or diminution of one's sense of self-esteem, and this then, inturn, may cause anxiety and depression."[20] We must try to alleviate these losses to the extent of our abilities. Research has shown that dentists have a 50% turnover among their patients within five years.[21] Much of this was related to unsatisfactory dentist-patient relationships, a situation which can be amplified by lack of awareness of the differences inherent in the aged. It is necessary to appreciate the aged as a resource of mankind, to adapt our methods to their difficulties that have arisen not at their bequest, and to offer them the best dental care available.

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